DOCUMENT RESUME

ED 182 706 CS 005 260

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TITLE Insights into Learning Disabilities through the Piagetian Perspective.
PUB DATE Feb 80
NOTE 15p.: Paper presented at the Annual Meeting of the International Interdisciplinary UAP-USC Conference on Piagetian Theory and the Helping Professions (10th, Los Angeles, CA, February 1-2, 1980)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Behavioral Science Research: *Educational Research: *Exceptional Child Education: *Learning Disabilities: *Research Methodology: *Research Needs
IDENTIFIERS *Piaget (Jean)

ABSTRACT

Insights into learning disabilities can result from adopting the Piagetian perspective. Although significant contributions have been made by taking a psychometric view of learning disabilities, these contributions are limited because the psychometric view focuses on quantifiable differences in functioning, the end product of thinking, and the static aspects of development. The Piagetian perspective provides knowledge about the qualitative, individual changes in thinking: an integrated view of intelligence and development: a theoretical framework to describe and compare the course of development: and a method for examining the process of thinking in learning disabled children. (A list of references is attached.) (Author/RL)

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ED182706

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Insights into Learning Disabilities through the Piagetian Perspective

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Paper presented at the Tenth Annual
UAP-USC International Interdisciplinary Conference
on Piagetian Theory and the Helping Professions,
Los Angeles, California, February 1, 1980

Running head: Insights into LD

C 005260

Abstract

Significant contributions have been made from adopting the psychometric view on learning disabilities. However, these contributions are limited as a result of focusing on quantifiable differences in functioning, the end product of thinking, and the static aspects of development. Additional insights into learning disabilities can result from adopting the Piagetian perspective. Specifically, the Piagetian view provides: 1) knowledge about the qualitative, intra-individual changes in thinking, 2) an intergrated view of intelligence and development, 3) a theoretical framework to describe and compare the course of development, and 4) a method for examining the process of thinking in learning disabled children. These insights into learning disabilities gained from the Piagetian perspective as well as some of the limitations resulting from the adoption of only the psychometric perspective are discussed in this paper.

Insights into Learning Disabilities From the Piagetian Perspective

Traditionally the field of learning disabilities has adopted the psychometric perspective on intelligence. The psychometric view tends to focus on inter-individual differences in mental ability, on quantitative growth, and upon the static contributions of nature and nurture (Elkind, 1970). As a result one views learning disabilities in terms of specific, quantifiable strengths and weakness in intellectual functioning, the differences rather than the similarities, the static aspects of development, and the resulting end products or performance level on cognitive tasks.

Although adoption of the psychometric perspective has resulted in many significant contributions to the understanding of learning disabilities, viewing learning disabilities from only this perspective has definite limitations. Additional insights and contributions are possible from also considering the Piagetian perspective. Specifically, the Piagetian perspective provides: 1) information about the intra-individual, qualitative changes in development, 2) an integrated view of intellectual functioning, 3) a theoretical framework

to describe and compare the course of the development and 4) a method for examining the process of thinking in learning disabled children. These insights offered by the Piagetian view to the field of learning disabilities will be further discussed.

The Intra-Individual, Qualitative Changes in Development

The psychometric view of intelligence has expanded the information regarding inter-individual differences in intellectual functioning among LD children by the development of tests designed to identify specific, quantifiable strengths and weaknesses in ability. However, by focusing on the intra-individual, qualitative changes in functioning the Piagetian perspective offers additional information about learning disabled children's development. These qualitative changes in functioning are the result of the continual dynamic interaction of the inherited functions of assimilation and accomodation with the environment (Elkind, 1970). Knowledge of the intra-individual changes through longitudinal Piagetian testing can facilitate our choices of appropriate environmental experiences for intervention and continued cognitive growth.

An Integrated View of Intellectual Functioning

Although the psychometric perspective of determining specific weaknesses in functioning may provide a more defined picture of the disability, it may also lead to a splintered view of intellectual functioning. It assumes that intelligence is a combination of discrete, specific abilities operating relatively independently. Intelligence, however, from the Piagetian perspective, is not a result of separate, independent abilities, but rather is a result of the interaction and inter-dependence of abilities. For example, according to Piagetian theory memory is not a discrete separate ability unrelated to intelligence, but rather the structures of memory are dependent upon the structures of intelligence. In fact, the structures of intelligence may be used to facilitate memory. This inter-relationship between memory and intelligence may explain the research finding that learning disabled children may have difficulty remembering an arbitrary sequence, but have no difficulty remembering an organized or meaningful sequence (Trepanier & Liben, 1979). This is but one example of how the processes of intellectual functioning are integrated and inter-related.

A Theoretical Framework to Describe and Compare the Course of Development

Another problem with the psychometric view focusing on specific weaknesses in LD children's functioning is that their overall course of development, their similarities to normal children, and their cognitive potentialities and competencies may be overlooked.

The Piagetian perspective, on the other hand, does not provide a strong theoretical framework with which to examine the overall course of development in LD children and to compare their course with that of normal children. Although limited, present research suggests that the developmental sequence in LD children is similar to that of normal children. However, the research findings are somewhat mixed as to whether the rate of proceeding through the sequence is slower in LD children. Klees & Lebrun (1972) investigating the performance of forty 7-11 year old dyslexic children, found the performance of the dyslexic children to be delayed about a year on seriation and conservation and at the same level as normals on horizontality. Kaleta (1973) reported a maturational lag on the acquisition in seriation among 6-8 year old LD children. In addition maturational lags among LD children in transitivity, equivalence, conservation of number and conservation of weight have been reported (Chabot, 1979; Brekke & Williams, 1977).

However, other research studies reported no differences between LD children and normal children on tasks of conservation, seriation, classification and role taking (Fincham & Meltzer, 1976; Meltzer, 1978; Fincham, 1979). These differences in research findings may be partially attributed to differences in definition of the LD population, in the tasks, in the scoring procedures, and in the application of the clinical method.

Although the research regarding the rate of development is unclear, it does seem clear that LD children can achieve a high level of cognitive competence and that they may use their cognitive competency to compensate for deficiences. For example, research by Schmid-Kitsikis (1972, 1973) with dyspraxic children (i.e. children with motor and spatial problems) suggested that although these children had performance problems constructing seriation and class inclusion tasks, their verbal competence on the tasks was high. Dyspraxic subjects when given the seriation task and asked what to do on the task responded "put them in order" or "start with the smallest and go to the largest" (Schmid-Kitsikis, 1973, p.694). Only when asked to construct the tasks did they experience difficulty. In addition research by de Ajuriaguerra et. al. (1963) with dysphasic

children suggested that these children performed at a normal level on Piagetian tasks when language was accompanied with action and gesture. In a third study, LD children diagnosed as having memory deficits on traditional psychometric measures did not show a memory deficit on a Piagetian memory task of seriation (Trepanier & Liben, 1979). These children were able to utilize their cognitive ability or operations to compensate for their memory deficiency.

The cognitive competencies of LD children may be obscured however, if only the psychometric perspective is taken. For example, in the previously cited research (Schmid-Kitsikis, 1972, 1973) with dyspraxic children if correct performance was the only criteria for judging competence than these children would have been considered incompetent. This discrepancy between performance and competence points out a final contribution of the Piagetian perspective.

A Method for Examining the Process of Thinking

A major limitation of the psychometric view of intelligence is that it tends to focus on performance or on the static end products of intellectual functioning (Elkind, 1970). Intellectual functioning is often dealt with as the sum of correct answers to specific test items performed within a short time limit. But

there may be many ways of arriving at the correct answer or many explanations for an incorrect one. Thus, a key to learning about the level of a child's intellectual functioning, as well as possible methods of intervention, may be to focus on the process with which the child problem solves (Inhelder, 1966; Schmid-Kitsikis, 1969; Reid, 1978 (a), (b), in press).

The clinical method of the Piagetian approach by its very nature allows one to examine the process of children's thinking. By asking probing questions, requiring an explanation for both correct and incorrect responses, and observing the non-verbal actions of the child, a more complete view of the child's level of functioning is possible. Through questioning and obsering many capabilities and methods for intervention may become apparent that are not evident in a total test score. Thus, in accordance with other Piagetian researchers (Inhelder, Schmid-Kitsikis & Reid) it seems that the Piagetian clinical method is a very valuable tool for diagnosing learning disabled children.

In sum, although the psychometric perspective has made many significant contributions to the field of learning disabilities, this view has definite limita-

tions. Thus, because of the additional insights and options offered, it is now imperative to further investigate the Piagetian perspective as applied to the field of learning disabilities.

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